

## RECLAMATION SURETY ESTIMATE

Diamond K Gypsum, Inc.

last revision

04/04/00

DKG Quarry

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M/015/041 (UTU-69860)

Emery County

Prepared by Utah State Division of Oil, Gas &amp; Mining

**-This estimate uses a D9 size dozer for most earthwork.****-The DKG gypsum quarry has a permit area of 30 acres; bonded for 12.6 disturbed acres.****-This estimate is based on adherence to the mining & reclamation schedule 1999 - 2008.****-Deviation from the proposed reclamation schedule may result in increased bond amounts.**

-Estimated initial disturbance as of 10/26/99: B (3.32) + C (4.09) + access road (0.60) = 8.01 acres.

-Area A: approx. 8.5 acres disturbed, 4.5 acres reclaimed 1995, 4 acres reclaimed 1997; AREA A IS NOW RELEASE

-Area B: approx. 3.32 acres disturbed, 3.18 acres reclaimed 1998, 0.12 acre access road remains.

-Area C: approx. 4.1 acres disturbed, current mining area includes soil &amp; overburden stockpiles &amp; access road.

-Assumed final disturbances of: 5 acres of previously mined, unreclaimed area &amp; 5 acres of last active quarry, plus main access road outside of quarry &amp; 2 culvert crossings.

-Previously mined inactive area assumed to be a duplicate of active area disturbances.

-Active mine area includes: overburden &amp; soil stockpiles (2 acres) &amp; quarry floor including road (3 acres).

-Main access road disturbance at end of mine life estimated as 2.6 acres.

-Access road assumed to be 25 ft wide, 4,500 ft long (based on max length of mining blocks block).

-Access road segment within active quarry area covered with overburden; no ripping required.

-Overburden volume is based on 2ft depth over 10 acres; topsoil volume is based on 1 ft depth over 10 acres.

**-Estimated maximum disturbance over entire mine life = 30.0 acres****-Maximum disturbance allowed (bonded) at any time = 12.6 acres**

Activity	Quantity	Units	\$/unit	\$	Note
Ripping stockpile & compacted areas (2 x 2 acre)	4.0	acre	250	1,000	(1)
Regrading portions of quarry (2 x 2 acre)	4.0	acre	337	1,348	(2)
Ripping 1/2 main access road - dozer	1.3	acre	250	325	(1)
Regrading all main access road - dozer	2.6	acre	337	876	(2)
Surface drainage restoration - trackhoe	500	LF	0.11	55	(3)
Culvert removal & drainage restoration - trackhoe	1.0	sum	1,000	1,000	(4)
Overburden replacement - dozer- 2ft, 10 acre	32,267	CY	0.33	10,648	(5)
Topsoil replacement - dozer - 1 ft, 10 acre	16,133	CY	0.33	5,324	(5)
Drill seeding	12.6	acre	150	1,890	(01)
General site cleanup & trash removal (10% site)	1.3	acre	50	63	(02)
Equipment mobilization	2	equip	800	1,600	(03)
Reclamation Supervision	4	days	372	1,488	(5)
		Subtotal		25,617	
10% Contingency				2,562	
		Subtotal		\$28,179	
Escalate for 5 years at 3.27% per yr				4,919	
		Total		\$33,098	
				<b>\$33,100</b>	
Rounded surety amount in yr 2005-\$				<b>\$33,100</b>	
Average cost per disturbed acre =				\$2,627	